What Is Claimed Is:

1. A satellite constellation comprising:

a plurality of satellites, each of said satellites having an RF ground link for communicating with a ground station and an optical link for communication with at least one of the plurality of satellites;

each of said satellites having a reconfigurable optical transmitter for sending and receiving data streams, each reconfigurable optical transmitter having a first optical carrier associated therewith and a reconfigurable optical receiver;

said plurality of satellites arranged to have a first subset of satellites, said first satellite configured to communicate;

said plurality of satellites arranged to have a second subset of satellites having at least one different satellite than that of said first subset, said second subset of satellites are configured to communicate.

2. A satellite constellation as recited in claim 1 wherein each of said plurality of satellites comprises a communications table.

3. A satellite constellation as recited in claim 2 wherein said communications table has

plurality of routes for communicating between satellites in said first subset.

4. A satellite constellation as recited in claim 1 wherein said reconfigurable transmitter comprises an array of laser diodes.

5. A satellite constellation as recited in claim 1 wherein said optical transmitter is tunable to generate a plurality of wavelengths.

6. A satellite constellation as recited in claim 1 wherein said reconfigurable receiver is one from the group consisting of a Fabri-Perot filter, a wavelength division multiplexer, and a fiber grating-based optical switch.

7. A satellite constellation as recited in claim 1 wherein said satellites are in low earth orbit.

8. A satellite constellation as recited in claim 1 wherein said satellites are in medium earth orbit.

9. A satellite constellation as recited in claim 1 wherein said first and second subsets are aligned with a landmass.

10. A satellite constellation as recited in claim 1 wherein said subset comprises seven satellites using three optical carriers.

11. A global communications system comprising:

a plurality of satellites spaced about the earth;

first subset of said plurality forming a local area network over a landmass, said subset having a first plurality of optical carriers assigned thereto for intercommunication;

said first subset having a second plurality of optical carriers assigned thereto for communicating with other satellites outside of said first subset.

12. A global communications system as recited in claim 11 wherein each of said plurality of satellites comprises a communications table.

13. A global communications system as recited in claim 11 wherein said communications table has plurality of paths for each path for communication between of said first subset.

14. A global communications system as recited in claim 11 wherein each of said satellites

comprises a reconfigurable transmitter and a reconfigurable receiver.

15. A global communications system as recited in claim 11 wherein said reconfigurable transmitter comprises an array of laser diodes.

16. A global communications system as recited in claim 11 wherein said optical transmitter is tunable to generate a plurality of wavelengths.

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17. A method of communicating within a satellite communications comprising the steps of:

deploying a plurality of satellites;

grouping a first subset of the plurality of satellites into a first local area network;

forming a plurality of routes between the satellites in the first local area network; and

assigning an optical carrier for each route.

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18. A method as recited in claim 17 further comprising the steps of forming a second local area network by grouping a second subset of the plurality of satellites and interconnecting the first local area network and the second local area network to form a wide area network.

19. A method as recited in claim 17 wherein the step of assigning an optical carrier comprises the step of obtaining the optical carrier and route from a respective optical wavelength selector and connection table.

20. A method as recited in claim 17 wherein the step of assigning comprises the step of reusing the optical carriers.